SITE:	Union Oil Docks: Unocal Refinery Wickland Oil (Crockett) Pacific Refinery (Rodeo)	LATITUDE:	38-03.0
HAZARD:	Facility	LONGITUDE:	122-15.5
VOLUME:	10,000 bbl/20,000 bbl		
DURATION:	3 days		

TRAJECTORY ANALYSIS

A spill trajectory envelope was calculated for facilities located immediately west of Carquinez Strait in East San Pablo Bay. Each facility is located on the southern shore near the strait. The analysis considered oil transport by the wind, tidal currents, and river flow, and spreading by physical processes such as gravity, surface tension, and tidal dispersion. Spill transport on the flood tide would move the oil through Carquinez Strait into Suisun Bay. A spill during the ebb tide would be expected to transport the oil westward into San Pablo Bay to approximately Point San Pablo. Physical spreading would cause the 10,000 bbl spill to spread laterally approximately 3 miles across either Suisun Bay or San Pablo Bay. The 20,000 bbl spill would spread approximately ½ mile farther into the bays.

Wind-induced surface currents could cause additional transport of oil depending on the direction, strength, and persistence of local winds. Northerly winds could transport the oil into South San Francisco Bay as far as Hunter Point. Oil transported south could spread westward to the Golden Gate area. Westerly and southwesterly winds could transport the oil across Suisun Bay to the mouths of the San Joaquin and Sacramento Rivers. Transport up these rivers would be limited by seasonal river flow.

These spill trajectory envelopes represent the outer perimeter of shoreside areas that could receive oil in the event of any spill. The envelopes are based on regional extremes of climate, tide, current, and wind and assume pessimistic dispersion and other adverse weather conditions. These trajectory envelopes do not represent the trajectory of any one spill. A full discussion of the details used for preparing these spill envelopes is provided in Section 202.2.